10-1.17 CONSTRUCTION AREA TRAFFIC CONTROL DEVICES

Flagging, signs, and temporary traffic control devices furnished, installed, maintained, and removed when no longer required shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Category 1 temporary traffic control devices are defined as small and lightweight (less than 45 kg) devices. These devices shall be certified as crashworthy by crash testing, crash testing of similar devices, or years of demonstrable safe performance. Category 1 temporary traffic control devices include traffic cones, plastic drums, portable delineators, and channelizers.

If requested by the Engineer, the Contractor shall provide written self-certification for crashworthiness of Category 1 temporary traffic control devices at least 5 days before beginning any work using the devices or within 2 days after the request if the devices are already in use. Self-certification shall be provided by the manufacturer or Contractor and shall include the following:

A. Date,
B. Federal Aid number (if applicable),
C. Contract number, district, county, route and kilometer post of project limits,
D. Company name of certifying vendor, street address, city, state and zip code,
E. Printed name, signature and title of certifying person; and
F. Category 1 temporary traffic control devices that will be used on the project.

The Contractor may obtain a standard form for self-certification from the Engineer.

Category 2 temporary traffic control devices are defined as small and lightweight (less than 45 kg) devices that are not expected to produce significant vehicular velocity change, but may cause potential harm to impacting vehicles. Category 2 temporary traffic control devices include barricades and portable sign supports.

Category 2 temporary traffic control devices shall be on the Federal Highway Administration's (FHWA) list of Acceptable Crashworthy Category 2 Hardware for Work Zones. This list is maintained by FHWA and can be located at:

http://safety.fhwa.dot.gov/roadway_dept/road_hardware/listing.cfm?code=workzone

The Department also maintains this list at:

http://www.dot.ca.gov/hq/traffops/signtech/signdel/pdf/Category2.pdf

Category 2 temporary traffic control devices that have not received FHWA acceptance shall not be used. Category 2 temporary traffic control devices in use that have received FHWA acceptance shall be labeled with the FHWA acceptance letter number and the name of the manufacturer. The label shall be readable and permanently affixed by the manufacturer. Category 2 temporary traffic control devices without a label shall not be used.

If requested by the Engineer, the Contractor shall provide a written list of Category 2 temporary traffic control devices to be used on the project at least 5 days before

beginning any work using the devices or within 2 days after the request if the devices are already in use.

Category 3 temporary traffic control devices consist of temporary traffic-handling equipment and devices that weigh 45 kg or more and are expected to produce significant vehicular velocity change to impacting vehicles. Temporary traffic-handling equipment and devices include crash cushions, truck-mounted attenuators, temporary railing, temporary barrier, and end treatments for temporary railing and barrier.

Type III barricades may be used as sign supports if the barricades have been successfully crash tested, meeting the NCHRP Report 350 criteria, as one unit with a construction area sign attached.

Category 3 temporary traffic control devices shall be shown on the plans or on the Department's Highway Safety Features list. This list is maintained by the Division of Engineering Services and can be found at:

http://www.dot.ca.gov/hq/esc/approved_products_list/HighwaySafe.htm

Category 3 temporary traffic control devices that are not shown on the plans or not listed on the Department's Highway Safety Features list shall not be used.

Full compensation for providing self-certification for crashworthiness of Category 1 temporary traffic control devices and for providing a list of Category 2 temporary traffic control devices used on the project shall be considered as included in the prices paid for the various items of work requiring the use of the Category 1 or Category 2 temporary traffic control devices and no additional compensation will be allowed therefor.

10-1.18 CONSTRUCTION AREA SIGNS

Construction area signs for temporary traffic control shall be furnished, installed, maintained, and removed when no longer required in conformance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Attention is directed to "Furnish Sign" of these special provisions.

Attention is directed to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these special provisions. Type II retroreflective sheeting shall not be used on construction area sign panels. Type III, IV, VII, VIII, or IX retroreflective sheeting shall be used for stationary mounted construction area sign panels.

The Contractor shall furnish and erect two 2006 State Transportation Bond Funding Identification signs at the locations designated by the Engineer before starting major construction activities visible to highway users. The manufacturing details entitled "I-680 SMART LANE" for these signs are available under this contract at:

http://www.dot.ca.gov/hq/traffops/signtech/signdel/bondfundspecs.htm

On completion of the project, the Contractor shall remove and dispose of the 2006 State Transportation Bond Funding Identification signs.

Unless otherwise shown on the plans or specified in these special provisions, the color of construction area warning and guide signs shall have black legend and border on orange background, except W10-1 or W47(CA) (Highway-Rail Grade Crossing Advance Warning) sign shall have black legend and border on yellow background.

Orange background on construction area signs shall be fluorescent orange.

Repair to construction area sign panels will not be allowed, except when approved by the Engineer. At nighttime under vehicular headlight illumination, sign panels that exhibit irregular luminance, shadowing or dark blotches shall be immediately replaced at the Contractor's expense.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to commencing excavation for construction area sign posts. The regional notification centers include, but are not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	(800) 642-2444 (800) 227-2600
Underground Service Alert-Southern California (USA)	(800) 422-4133 (800) 227-2600

Excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes. The post hole diameter, if backfilled with portland cement concrete, shall be at least 4 inches greater than the longer dimension of the post cross section.

Construction area signs placed within 15 feet from the edge of the travel way shall be mounted on stationary mounted sign supports as specified in "Construction Area Traffic Control Devices" of these special provisions.

The Contractor shall maintain accurate information on construction area signs. Signs that are no longer required shall be immediately covered or removed. Signs that convey inaccurate information shall be immediately replaced or the information shall be corrected. Covers shall be replaced when they no longer cover the signs properly. The Contractor shall immediately restore to the original position and location any sign that is displaced or overturned, from any cause, during the progress of work.

Furnishing, erecting, maintaining, removing and disposing of the 2006 State Transportation Bond Funding Identification signs installed under this contract will be measured and paid for as Construction Area Signs.

10-1.19 MAINTAINING TRAFFIC

Maintaining traffic shall conform to the provisions in Sections 7-1.08, "Public Convenience," Section 7-1.09, "Public Safety," and Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, "Public Safety" of these special provisions and these special provisions.

Closure is defined as the closure of a traffic lane or lanes, including shoulder, ramp or connector lanes, within a single traffic control system.

Closures shall conform to the provisions in "Traffic Control System for Lane Closure" of these special provisions.

All Contractor's vehicular traffic will be regulated when exiting and entering the work areas to and from Route 680 within the project limits as follows:

A. The Contractor shall prepare and submit a Contractor's vehicular traffic plan 5 working days in advance of the start of work to the Engineer for review and approval.
B. The Contractor shall make available acceleration and decelaration areas parallel with Route 680 traffic where construction vehicles are exiting and entering wok areas. These locations shall be a minimum 3.3 meter wide paved area with a minimum distance of 500 meters, including taper, and must have clear line of sight for Route 680 traffic.
C. The Contractor shall install all warning signs and traffic control devices as necessary and as ordered by the Engineer to inform the motorists of the movements of construction-related vehicles.
D. All trucks entering or exiting center median without a lane closure in place shall not be allowed.

Failure to comply with these provisions and the approved Contractor's vehicular traffic plan will result in suspension of the work in that area by the Engineer. The work can be resumed only after corrections are made and approved by the Engineer.

Full compensation for the work involved in preparing and implementing the Contractor's vehicular traffic plan shall be considered as included in the contract lump sum price paid for traffic control system and no additional compensation will be allowed therefore.

In addition to the provisions set forth in "Public Safety" of these special provisions, whenever work, including the work of installing, maintaining, and removing temporary railing (Type K) is to be performed on the freeway within 1.8 m of the adjacent traffic lane, the adjacent traffic lane shall be closed.

Except as listed above, closure of adjacent traffic lane will not be required for grinding and grooving operations, and for installing, maintaining and removing traffic control devices.

At locations where falsework pavement lighting or pedestrian openings through falsework are designated, falsework lighting shall be installed in conformance with the provisions in Section 86-6.11, "Falsework Lighting," of the Standard Specifications.

Openings shall be provided through bridge falsework for the use of public traffic at each location where falsework is constructed over the streets or routes listed in the following table. The type, minimum width, height, and number of openings at each location, and the location and maximum spacing of falsework lighting, if required for each opening, shall conform to the requirements in the table. The width of vehicular openings shall be the clear width between temporary railings or other protective work. The spacing shown for falsework pavement lighting is the maximum distance center to center in meters between fixtures.

Calaveras Boulevard Separation (Route 237) (Widen)

	Number	Width	Height
Vehicle Openings	2	19.2	4.9
Pedestrian Openings	2	2.5	4.9

	Location	Spacing
Falsework Pavement Lighting	R and L with C Staggered ½ Space	7

(Width and Height in meters)
(R = Right side of traffic. L = Left side of traffic)
(C = Centered overhead)

Jacklin Road Undercrossing (Widen)

	Number	Width	Height
Vehicle Openings	2	12.0	4.6
Pedestrian Openings	2	1.8	4.6
	Location	Spacing	
Falsework Pavement Lighting	R and L	7	

(Width and Height in meters)
(R = Right side of traffic. L = Left side of traffic)
(C = Centered overhead)

East Warren Avenue Undercrossing (Widen)

	Number	Width	Height
Vehicle Openings	2	9.6	5.1
Pedestrian Openings	2	1.8	5.1
	Location	Spacing	
Falsework Pavement Lighting	R and L Staggered ½ Space	9	

(Width and Height in meters)
(R = Right side of traffic. L = Left side of traffic)
(C = Centered overhead)

The exact location of openings will be determined by the Engineer.

Closures are only allowed during the hours shown in the lane requirement charts included in this section "Maintaining Traffic," except for work required under Sections 7-1.08, "Public Convenience," and Section 7-1.09, "Public Safety."

The full width of the traveled way shall be open for use by public traffic when construction operations are not actively in progress.

Unless approved by the Engineer, the maximum length of a single stationary lane closure shall be 3 km.

Unless approved by the Engineer, not more than 1 separate stationary lane closures will be allowed at one time. Local authorities shall be notified at least 5 business days before work begins. The Contractor shall cooperate with local authorities to handle traffic through the work area and shall make arrangements to keep the work area clear of parked vehicles.

Adjacent ramps, in the same direction of travel, servicing 2 consecutive local streets shall not be closed simultaneously unless directed by the Engineer.

C43(CA) (FRESH CONCRETE) sign shall be used at the beginning of the pavement slab replacement work area. The sign shall be in place during the entire curing period.

SC6-4(CA) (RAMP CLOSED) sign shall be used to inform motorists of the temporary closing of a connector, entrance ramp or exit ramp for more than one business day.

The SC6-4(CA) signs shall be installed at least 7 days before closing the connector or ramp, but not more than 14 days before the connector or ramp closure. The Contractor shall notify the Engineer at least 2 business days before installing the SC6-4(CA) signs. The SC6-4(CA) signs shall be stationary mounted at locations shown on the plans and as directed by the Engineer.

Accurate information shall be maintained on the SC6-4(CA) signs. The SC6-4(CA) signs, when no longer required, shall be immediately covered or removed.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders including sections closed to public traffic.

Personal vehicles of the Contractor's employees shall not be parked within the right of way .

When work vehicles or equipment are parked on the shoulder within 1.8 m of a traffic lane, the shoulder area shall be closed as shown on the plans.

If minor deviations from the lane requirement charts are required, a written request shall be submitted to the Engineer at least 15 days before the proposed date of the closure. The Engineer may approve the deviations if there is no significant increase in the cost to the State and if the work can be expedited and better serve the public traffic.

Designated legal holidays are: January 1st, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, November 11th, Thanksgiving Day, and December 25th. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When November 11th falls on a Saturday, the preceding Friday shall be a designated legal holiday.

Special Days are: the third Monday in January, the second Monday in February, March 31, the second Monday in October.

Full compensation for furnishing, erecting, maintaining, and removing and disposing of the SC6-4(CA), W20-1, and C24(CA) signs shall be considered as included in the

contract lump sum price paid for construction area signs and no additional compensation will be allowed therefor.

Lane Closure Restriction for Designated Legal Holidays and Special Days

Thu	Fri	Sat	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Sun
x	**H** xx	xx	xx							
	SD xx									
x	xx	**H** xx	xx							
		SD xx								
	x	xx	**H** xx	xx						
			SD xx							
	x	xx	xx	**H** xx						
	x	xx	xx	**SD** xx						
				x	**H** xx					
				x	**SD** xx					
					x	**H** xx				
						SD xx				
						x	**H** xx	xx		xx
							SD xx			

Legends:

	Refer to lane closure charts
x	The full width of the traveled way shall be open for use by public traffic after 4:00AM.
xx	The full width of the traveled way shall be open for use by public traffic.
H	Designated Legal Holiday
SD	Special Day

Chart No. 1
Freeway/Expressway Lane Requirements

County: Alameda	Route/Direction: 680/Southbound	KP: 0.201/7.779 PM: 0.125/4.834

Closure Limits: From 1.6 km N/O Grimmer UC to Scott Creek UC

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1																3	3	2	2	1	
Fridays	1	1	1	1																	3	3	2	2	
Saturdays	1	1	1	1	1	2	2	3	3												3	3	3	2	
Sundays	2	1	1	1	1	1	1	2	2	3													3	2	

Legend:

1	Provide at least one through freeway lane open in direction of travel
2	Provide at least two adjacent through freeway lanes open in direction of travel
3	Provide at least three adjacent through freeway lanes open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS:

Chart No. 2
Freeway/Expressway Lane Requirements

County: Alameda	Route/Direction: 680/Northbound	KP: 0.201/7.78 PM: 0.125/4.834

Closure Limits: From Scott Creek UC to 1.6 km N/O Grimmer UC

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1	1																			2	2
Fridays	1	1	1	1	1																				2
Saturdays	2	1	1	1	1	1	2																		2
Sundays	2	1	1	1	1	1	1	2	2															2	1

Legend:

1	Provide at least one through freeway lane open in direction of travel
2	Provide at least two adjacent through freeway lanes open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS:

Chart No. 3
Complete Connector Closure Hours/Connector Lane Requirements

County: Alameda	Route/Direction: 680/Southbound	KP: 4.411	PM: 2.741

Closure Limits: On the SB Rte 680/SB Rte 262 collector off

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C
Fridays	C	C	C	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C
Saturdays	C	C	C	C	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C
Sundays	C	C	C	C	C	C	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C

Legend:

C	Connector may be closed completely
N	No work permitted.

REMARKS: See Detour No. 1

Chart No. 4
Complete Ramp Closure Hours/Ramp Lane Requirements

County: Alameda	Route/Direction: 680/Southbound	KP: 0.613	PM: 0.381

Closure Limits: On the Scott Creek Road off-ramp

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C																		C	C	C	
Fridays	C	C	C	C																			C	C	
Saturdays	C	C	C	C	C	C	C	C	C	C											C	C	C	C	
Sundays	C	C	C	C	C	C	C	C	C	C											C	C	C	C	

Legend:

C	Ramp may be closed completely
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS:

Chart No. 5
Complete Ramp Closure Hours/Ramp Lane Requirements

County: Alameda	Route/Direction: 680/Southbound	KP: 3.542	PM: 2.201

Closure Limits: On the Mission Blvd./Rte 262 on-ramp

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C																		C	C	
Fridays	C	C	C	C	C																			C	
Saturdays	C	C	C	C	C	C	C	C															C	C	
Sundays	C	C	C	C	C	C	C	C	C													C	C	C	

Legend:

C — Ramp may be closed completely

Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Detour No. 2

Chart No. 6
Complete Ramp Closure Hours/Ramp Lane Requirements

County: Alameda	Route/Direction: 680/Southbound	KP: SCL-15.98 PM: SCL-9.931

Closure Limits: On the Scott Creek Road on-ramp

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C																C	C	C	C	
Fridays	C	C	C	C	C																C	C	C	C	
Saturdays	C	C	C	C	C	C	C	C	C											C	C	C	C	C	
Sundays	C	C	C	C	C	C	C	C	C	C	C	C	C							C	C	C	C	C	

Legend:

C Ramp may be closed completely

Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Detour No. 3

Chart No. 7
Complete Connector Closure Hours/Connector Lane Requirements

County: SCL	Route/Direction: 680/SB	KP:	PM: 7.901

Closure Limits: On the Connector Off-Ramp to EB Calaveras (Rte 237)

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C					C	C	C	C	C
Fridays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C					C	C	C	C	C
Saturdays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Sundays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Legend:

C	Connector may be closed completely
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Detour Plan #5. See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 8
Complete Connector Closure Hours/Connector Lane Requirements

County: SCL	Route/Direction: 680/SB	KP:	PM: 7.291

Closure Limits: On the Connector On-Ramp from Calaveras (Rte 237)

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C	C																C	C	
Fridays	C	C	C	C	C	C	C																	C	
Saturdays	C	C	C	C	C	C	C	C																C	
Sundays	C	C	C	C	C	C	C	C	C														C	C	

Legend:

C	Connector may be closed completely
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Detour Plan #1. See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 9
Complete Ramp Closure Hours/Ramp Lane Requirements

County: SCL	Route/Direction: 680/SB	KP:	PM: 8.751

Closure Limits: On the Off-ramp to Jacklin Rd.

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C	C				C	C	C	C	C	C	C			C	C	C	C	C	
Fridays	C	C	C	C	C	C	C				C	C	C	C	C	C	C			C	C	C	C	C	
Saturdays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
Sundays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	

Legend:

C Ramp may be closed completely

Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: Traffic detoured to the next off-ramp. See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 10
Complete Ramp Closure Hours/Ramp Lane Requirements

County: SCL	Route/Direction: 680/SB	KP:	PM: 8.291

Closure Limits: On the On-ramp from Jacklin Rd.

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C	C	C			C	C	C	C	C							C	C	C	C
Fridays	C	C	C	C	C	C	C	C			C	C	C	C	C							C	C	C	C
Saturdays	C	C	C	C	C	C	C	C	C	C	C										C	C	C	C	C
Sundays	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Legend:

C Ramp may be closed completely

Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Detour Plan #2. See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 11
Freeway/Expressway Lane Requirements

County: SCL	Route/Direction: 680/NB	KP:	PM: M 7.5/M9.9

Closure Limits: From Calaveras/Rte 237 to Scott Creek UC.

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1	1	3															3	3	3	3	2
Fridays	1	1	1	1	1	3																3	3	3	2
Saturdays	2	1	1	1	1	2	2	3	3												3	3	3	3	2
Sundays	2	2	1	1	1	1	2	2	2	3											3	3	3	3	2

Legend:

1	Provide at least one through freeway lane open in direction of travel
2	Provide at least two adjacent through freeway lanes open in direction of travel
3	Provide at least three adjacent through freeway lanes open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 12
Freeway/Expressway Lane Requirements

County: SCL	Route/Direction: 680/SB	KP:	PM: M 7.5/M9.9

Closure Limits: From Calaveras/Rte 237 to Scott Creek UC.

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1	1	2	3														3	3	2	2	
Fridays	1	1	1	1	1	2	3														3	3	3	2	
Saturdays	2	1	1	1	1	1	2	2	3											3	3	3	3	2	
Sundays	2	1	1	1	1	1	1	2	2	3											3	3	3	2	

Legend:

1	Provide at least one through freeway lane open in direction of travel
2	Provide at least two adjacent through freeway lanes open in direction of travel
3	Provide at least three adjacent through freeway lanes open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 13
Complete Connector Closure Hours/Connector Lane Requirements

County: SCL	Route/Direction: 680/NB	KP:	PM: 7.904

Closure Limits: On the Connector On-Ramp from EB Calaveras (Rte 237)

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C	C	C															C	C	C	
Fridays	C	C	C	C	C	C	C																C	C	
Saturdays	C	C	C	C	C	C	C	C	C														C	C	
Sundays	C	C	C	C	C	C	C	C	C	C	C											C	C	C	

Legend:

C	Connector may be closed completely
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Detour Plan #3. See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 14
Complete Connector Closure Hours/Connector Lane Requirements

County: SCL	Route/Direction: 680/NB	KP:	PM: 7.435

Closure Limits: On the Connector Off-Ramp to WB Calaveras (Rte 237)

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	C	C	C	C	C																C	C	C	C	
Fridays	C	C	C	C	C																	C	C	C	
Saturdays	C	C	C	C	C	C	C	C														C	C	C	
Sundays	C	C	C	C	C	C	C	C	C												C	C	C	C	

Legend:

C	Connector may be closed completely
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Detour Plan #4. See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 15
Freeway/Expressway Lane Requirements

County: SCL	Route/Direction: 237/EB	KP:	PM: 11.08

Closure Limits: At the Junction with Route 680.

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1	1	1	2																2	2	
Fridays	1	1	1	1	1	1	2																	2	
Saturdays	2	1	1	1	1	1	1	2	2	2														2	
Sundays	2	1	1	1	1	1	1	1	1	2	2	2											2	2	

Legend:

1	Provide at least one through freeway lane open in direction of travel
2	Provide at least two adjacent through freeway lanes open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Chart No. 16
Freeway/Expressway Lane Requirements

County: SCL	Route/Direction: 237/WB	KP:	PM: 11.08

Closure Limits: At the Junction with Route 680.

FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Thursdays	1	1	1	1	2																2	2	2	2	1
Fridays	1	1	1	1	2																	2	2	2	2
Saturdays	1	1	1	1	1	1	2	2	2													2	2	2	2
Sundays	1	1	1	1	1	1	1	1	2	2												2	2	2	1

Legend:

1	Provide at least one through freeway lane open in direction of travel
2	Provide at least two adjacent through freeway lanes open in direction of travel
	Work permitted within project right of way where shoulder or lane closure is not required.

REMARKS: See Lane Closure Restriction for Designated Legal Holidays and Special Days Table in the Maintaining Traffic section of these Special Provisions for additional closure restrictions.

Erection and removal of falsework at locations where falsework openings are required shall be undertaken one location at a time. During falsework erection and removal, public traffic in the lanes over which falsework is being erected or removed shall be detoured or stopped as specified in this section, "Maintaining Traffic." Falsework erection shall include adjustments or removal of components that contribute to the horizontal stability of the falsework system**.** Falsework removal shall include lowering falsework, blowing sand from sand jacks, turning screws on screw jacks, and removing wedges.

The Contractor shall have necessary materials and equipment on the site to erect or remove the falsework over any one opening before detouring or stopping public traffic.

10-1.20 CLOSURE REQUIREMENTS AND CONDITIONS

Closures shall conform to the provisions in "Maintaining Traffic" of these special provisions and these special provisions.

CLOSURE SCHEDULE

By noon Monday, the Contractor shall submit a written schedule of planned closures for the following week period, defined as Sunday noon through the following Sunday noon. Closures involving work (temporary barrier placement and paving operations) that will reduce horizontal clearances, traveled way inclusive of shoulders, to 2 lanes or less shall be submitted not less than 25 days and not more than 125 days before the anticipated start of operation. Closures involving work (pavement overlay, overhead sign installation, falsework and girder erection) that will reduce the vertical clearances available to the public, shall be submitted not less than 25 days and not more than 125 days before the anticipated start of operation.

The Closure Schedule shall show the locations and times of the proposed closures. The Closure Schedule request forms furnished by the Engineer shall be used. Closure Schedules submitted to the Engineer with incomplete or inaccurate information will be rejected and returned for correction and resubmittal. The Contractor will be notified of disapproved closures or closures that require coordination with other parties as a condition of approval.

Closure Schedule amendments, including adding additional closures, shall be submitted by noon to the Engineer, in writing, at least 3 business days in advance of a planned closure. Approval of Closure Schedule amendments will be at the discretion of the Engineer.

The Engineer shall be notified of cancelled closures 2 business days before the date of closure.

Closures that are cancelled due to unsuitable weather may be rescheduled at the discretion of the Engineer.

CONTINGENCY PLAN

A detailed contingency plan shall be prepared for reopening closures to public traffic. If required by "Beginning of Work, Time of Completion and Liquidated Damages" of these special provisions, the contingency plan shall be submitted to the Engineer before work at the job site begins. Otherwise, the contingency plan shall be submitted to the Engineer within one business day of the Engineer's request.

LATE REOPENING OF CLOSURES

If a closure is not reopened to public traffic by the specified time, work shall be suspended in conformance with the provisions in Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications. No further closures are to be made until the Engineer has accepted a work plan, submitted by the Contractor, that will insure that future closures will be reopened to public traffic at the specified time. The Engineer will have 2 business days to accept or reject the Contractor's proposed work plan. The Contractor will not be entitled to compensation for the suspension of work resulting from the late reopening of closures.

For each 10-minute interval, or fraction thereof past the time specified to reopen the closure, the Department will deduct $ 3,500 per interval from moneys due or that may become due the Contractor under the contract.

COMPENSATION

The Engineer shall be notified of delays in the Contractor's operations due to the following conditions, and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of those conditions, and the Contractor's loss due to that delay could not have been avoided by rescheduling the affected closure or by judicious handling of forces, equipment and plant, the delay will be considered a right of way delay and will be compensated in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications:

1. The Contractor's proposed Closure Schedule is denied and his planned closures are within the time frame allowed for closures in "Maintaining Traffic" of these special provisions, except that the Contractor will not be entitled to compensation for amendments to the Closure Schedule that are not approved.
2. The Contractor is denied a confirmed closure.

Should the Engineer direct the Contractor to remove a closure before the time designated in the approved Closure Schedule, delay to the Contractor's schedule due to removal of the closure will be considered a right of way delay and compensation for the delay will be determined in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

10-1.21 TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE

A traffic control system shall consist of closing traffic lanes and ramps in conformance with the details shown on the plans, the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, the provisions under "Maintaining Traffic" and "Construction Area Signs" of these special provisions, and these special provisions.

The provisions in this section will not relieve the Contractor of responsibility for providing additional devices or taking measures as may be necessary to comply with the provisions in Section 7-1.09, "Public Safety," of the Standard Specifications.

During traffic stripe operations and pavement marker placement operations using bituminous adhesive, traffic shall be controlled, at the option of the Contractor, with either stationary or moving lane closures. During other operations, traffic shall be controlled with stationary lane closures. Attention is directed to the provisions in Section 84-1.04, "Protection From Damage," and Section 85-1.06, "Placement," of the Standard Specifications.

If components in the traffic control system are displaced or cease to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair the components to the original condition or replace the components and shall restore the components to the original location.

STATIONARY LANE CLOSURE

When lane and ramp closures are made for work periods only, at the end of each work period, components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the Contractor so elects, the components may be stored at selected central locations, designated by the Engineer within the limits of the highway right of way.

Each vehicle used to place, maintain and remove components of a traffic control system on multilane highways shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining or removing the components. Vehicles equipped with Type II flashing arrow sign not involved in placing, maintaining or removing the components when operated within a stationary type lane closure shall only display the caution display mode. The sign shall be controllable by the operator of the vehicle while the vehicle is in motion. The flashing arrow sign shown on the plans shall not be used on the vehicles which are doing the placing, maintaining and removing of components of a traffic control system and shall be in place before a lane closure requiring the sign's use is completed.

The 500-m section of a lane closure, shown along lane lines between the 300-m lane closure tapers on the plans entitled "Traffic Control System for Lane Closures on Freeways and Expressways" and "Traffic Control System for Lane and Complete Closures on Freeways and Expressways" shall not be used.

The traffic cones shown to be placed transversely across closed traffic lanes and shoulders on the plans entitled "Traffic Control System for Lane Closures on Freeways and Expressways" and "Traffic Control System for Lane and Complete Closures on Freeways and Expressways" shall not be placed.

MOVING LANE CLOSURE

Flashing arrow signs used in moving lane closures shall be truck-mounted. Changeable message signs used in moving lane closure operations shall conform to the provisions in Section 12-3.12, "Portable Changeable Message Signs," of the Standard Specifications, except the signs shall be truck-mounted and the full operation height of the bottom of the sign may be less than 2.1 m above the ground, but should be as high as practicable.

Truck-mounted attenuators (TMA) for use in moving lane closures shall be any of the following approved models, or equal:

1. Hexfoam TMA Series 3000, Alpha 1000 TMA Series 1000, and Alpha 2001 TMA Series 2001, manufactured by Energy Absorption Systems, Inc., 35 East Wacker Drive, Suite 1100, Chicago, IL 60601:

    1.1. Northern California: Traffic Control Service, Inc., 8585 Thys Court, Sacramento, CA 95828, telephone (800) 884-8274, FAX (916) 387-9734
    1.2. Southern California: Traffic Control Service, Inc., 1818 E. Orangethorpe, Fullerton, CA 92831-5324, telephone (800) 222-8274, FAX (714) 526-9501

2. Cal T–001 Model 2 or Model 3, manufacturer and distributor: Hexcel Corporation, 11711 Dublin Boulevard, P.O. Box 2312, Dublin, CA 94568, telephone (925) 551–4900
3. Renco Rengard Model Nos. CAM 8–815 and RAM 8–815, manufacturer and distributor: Renco Inc., 1582 Pflugerville Loop Road, P.O. Box 730, Pflugerville, TX 78660–0730, telephone (800) 654–8182

Each TMA shall be individually identified with the manufacturer's name, address, TMA model number, and a specific serial number. The names and numbers shall each be a minimum 13 mm high and located on the left (street) side at the lower front corner. The TMA shall have a message next to the name and model number in 13 mm high letters which states, "The bottom of this TMA shall be 610 mm ± 910 mm above the ground at all points for proper impact performance." Any TMA which is damaged or appears to be in poor condition shall not be used unless recertified by the manufacturer. The Engineer shall be the sole judge as to whether used TMAs supplied under this contract need recertification. Each unit shall be certified by the manufacturer to meet the requirements for TMA in conformance with the standards established by the Transportation Laboratory.

Approvals for new TMA designs proposed as equal to the above approved models shall be in conformance with the procedures (including crash testing) established by the Transportation Laboratory. For information regarding submittal of new designs for evaluation contact: Transportation Laboratory, 5900 Folsom Boulevard, Sacramento, California 95819.

New TMAs proposed as equal to approved TMAs or approved TMAs determined by the Engineer to need recertification shall not be used until approved or recertified by the Transportation Laboratory.

PAYMENT

The contract lump sum price paid for traffic control system shall include full compensation for furnishing all labor, materials (including signs), tools, equipment, and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control system shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The adjustment provisions in Section 4-1.03, "Changes," of the Standard Specifications shall not apply to the item of traffic control system. Adjustments in compensation for traffic control system will be made only for increased or decreased traffic control system required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary. The adjustment will be made on a force account basis as provided in Section 9-1.03, "Force Account Payment," of the Standard Specifications for increased work and estimated on the same basis in the case of decreased work.

Traffic control system required by work which is classed as extra work, as provided in Section 4-1.03D of the Standard Specifications, will be paid for as a part of the extra work.